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ONLINE RETAILERS' STRATEGIES TO SURVIVE IN A HOMOGENEOUS PRODUCT MARKET: AN EXPLORATORY ANALYSIS

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Abstract

The shakeup in e-commerce gives us an opportunity to reevaluate the effectiveness of various business strategies in this electronic revolution. This study investigates the strategies adopted by 125 online retailers in the PDA market during the period between July 2001 and December 2002, including economies of scale, developing first-mover or multichannel advantages, branding, offering value-added services, being a loss leader, and going public. Results of logistic regression show that branding, multichannel operation, and offering value-added services give retailers sustainable competitive advantages in the electronic market. Findings from cluster analysis reveal that online retailers who offer customers superior value enjoy a price premium and are more likely to survive competition. Implications for both researchers and practitioners are discussed.

Keywords: Electronic market, e-commerce, survival, strategy, competition

Introduction

The spread of the Internet has revolutionized the business landscape. Not only has the Internet reconfigured the way companies do business and the way consumers buy goods and services, it has been instrumental in transforming the value chain from manufacturers to retailers to consumers, creating a new retail distribution channel (Donthu and Garcia 1999). A number of factors make the Internet market different from the traditional “brick and mortar” market. First, the Internet alters the production cost structure in many industries by lowering the cost of setting up operations, reducing marginal production and distribution costs. This promotes the entry of new online retailers in sectors that were previously highly concentrated (Daripa and Kapur 2001). Second, the Internet facilitates a dramatic reduction in consumers’ search costs and allows easy comparison shopping between rival sellers. Going from one store to another now takes only a mouse click, while in the past, distance and accessibility were powerful restraints on consumers’ ability to comparison shop. Further, price search intermediaries—sites that rely on shopbots—make cheap and effective price comparison possible. In short, electronic markets should be more efficient (Alba et al 1997; Bakos 1997; Brynjofsson and Smith 2000).

The markets where the Internet is likely to have the greatest impact are those with homogenous goods. Homogeneous goods are by definition non-differentiated goods, which consumers value equally regardless of the supplier. Price competition is especially fierce in this type of market, so that ultimately suppliers are forced to set their prices equal to their marginal cost—an outcome of Bertrand competition. How retailers can compete effectively in this new space is still an open question, especially given the failure of so many dot-coms. Our purpose in this paper is to investigate which strategies increase online retailers’ chances of survival in the homogeneous goods markets.

The paper is structured as follows. First, we review the existing literature on online retail success and suggest a set of hypotheses. Next, we describe our data collection approach and report the results of statistical analysis. Finally, we discuss our findings and present some concluding thoughts.

Literature Review

For a retailer, competitive advantage can be achieved in two ways. One is operational effectiveness: doing the same things your competitors do but doing them better. The other is strategic positioning: doing things differently from competitors, in a way that delivers a unique type of value to customers. Based on a review of the literature, we focus on the following strategies adopted by online retailers: economies of scale, developing first-mover or multichannel advantages, branding, offering value-added services, being a loss leader, and going public.

Economies of Scale

Web-based business-to-consumer companies face significant startup costs in addition to the variable costs of running a business. While pricing points must cover variable expenses, profitability depends on generating enough total revenue to amortize those fixed costs. Hence, scale is critical for survival, and scale means enough customers spending enough money to make all of the numbers work (Finkelstein 2001).

One way to achieve economies of scale on the Internet is to increase the variety of products carried on a retailer's Website. Unlike traditional stores, the marginal cost of carrying one more product is nearly zero on the Internet and online retailers can have an unlimited virtual inventory (Brynjolfsson et al. 2002). As the variety of products increases, the Internet retailer appeals to a broader range of consumers and increases the chances they will make a purchase. Since the marginal cost of serving one more customer is almost zero on the Internet, more transactions completed will lead to lower average costs and higher margins in the long run. Thus, we have the following hypothesis:

- H1. Internet retailers who offer a larger variety of products are more likely to survive.

First-Mover Advantage

It is well known that being a first-mover in a new market leads to strategic benefits (Boulding and Christen 2001). First, there is evidence (e.g., Carpenter and Nakomoto 1989) that customers' perceptual space may evolve in a manner that favors the initial position of the pioneer. Second, customers may develop switching costs as they accumulate experience with the pioneer's product. Third, network externalities may establish the pioneer's product as the industry standard. Previous research has shown that first movers enjoy a large market share and price premium (Kerin et al. 1992; Narasimhan and Zhang 2000).

The issue of whether the first-mover advantage applies to e-commerce remains unsettled. To date, all systematic research on first-mover advantage and disadvantage has focused on brick and mortar firms (Lieberman and Montgomery 1988; Shankar et al. 1998; Wernerfelt and Karnani 1987). Although these studies provide a broad conceptual foundation for building and maintaining competitive advantage, the findings could not be generalized to e-commerce because of the different realities of the latter type of business: weak intellectual property rights protection, technological interdependence, market and technical uncertainties, rapid rates of technological innovation and the swift movement of information (Mellahi and Johnson 2000).

Due to the lack of systematic investigation of first-mover advantage in the electronic market, we suggest testing the following hypothesis:

- H2. Internet retailers who have been online longer are more likely to survive.

Multichannel Advantages

Anecdotal evidence has demonstrated that online retailers who have physical operations (hybrid retailers) enjoy significant advantages over their pure online competitors in many respects. For example, pure online players have to spend a huge amount

of money to build an infrastructure and a brand name, as well as to establish alliances and a customer base. By contrast, hybrid retailers like Circuit City, Best Buy, REI, Target, and BlueLight.com already have considerable amounts of infrastructure, brand recognition, vendor alliances, and, most importantly, customers. Even though many incumbents are just starting to move their businesses online, the strength of their brand may continue to provide a distinct advantage. Internet brands have proven difficult to build, perhaps because the lack of physical presence and direct human contact makes virtual businesses less tangible to customers than traditional businesses. “Despite huge outlays on advertising, product discount, and purchasing incentives, most dotcom brands have not approached the power of established brands, achieving only a modest impact on loyalty” (Porter 2001). Based on the above discussion, we have the following hypothesis:

- H3. Retailers operating through multiple channels are more likely to survive than pure online retailers.

Branding

Brand name appears to be just as important in online purchasing as it is offline (Coltman et al. 2001). Barwise (1997) argues that in a busy, “over communicated and untrustworthy” world, consumers continue to gravitate toward brands as a way to simplify choices. Brand names can act as substitutes for information gathering, helping online buyers locate specific products. In addition, brands build trust, security, and an expectation of quality. Strong e-commerce brands can signal quality in delivery reliability, security of personal information, dependability of return policy and customer service in general (de Figueiredo 2000). In the marketing literature, the value of a brand is measured with brand equity, which is defined as “the differential effect that brand knowledge has on consumer response to the marketing of that brand” (Keller 1993). Brand equity mainly arises from two sources: consumer awareness of the brand and consumer knowledge about the brand (Campbell 2002). Correspondingly, the process of building a strong brand is two-fold: (1) developing awareness of your brand among your target customers and (2) building strong, favorable and unique associations between your brand and your products and/or services in the customer’s mind. Taking advantage of the unique features of the Internet as an efficient communication medium, online retailers can promote their brand by establishing external links and registering with popular shopbots.

External links are hypertext links between a retailer’s own Website and other Websites. Affiliate or associate programs have proven to be an effective way of increasing external links on the Internet. An affiliate program provides sites with an opportunity and a financial incentive to sell other companies’ products or just display their ads because every item sold via the affiliate’s links brings in a percentage of the sale (Zeitchik 2000). These affiliate and associate plans offer little risk to the advertiser since they only pay on business generated. Partly for this reason, such programs are popular on a wide variety of sites, especially smaller ones (Notess 1999). Establishing external links increases a retailer’s brand awareness among all online shoppers and at the same time makes its online store more accessible to potential customers. Retailers with higher brand awareness and store accessibility are more likely to be considered and visited by online customers. Hence, we expect that online retailers with a larger number of external links will be more likely to survive the competition:

- H4a. Internet retailers with a larger number of external links are more likely to survive.

Internet shopbots provide one-click access to price and product information from numerous competing retailers (Smith and Brynjolfsson 2001). Shopbots have great influence on Internet commerce because they can reach Web users from the moment they start browsing, and steer them to anyone with a product to sell or advertise (Mangalindan et al. 2003). As more and more consumers start using shopbots to search for product and retailer information when making purchases online, retailers registered with popular shopbots will have more exposure to their potential customers, and thus enjoy a higher level of brand awareness and store accessibility. Ultimately, these retailers stand a better chance of being considered and chosen by their potential customers. To better take advantage of this brand promotion opportunity, online retailers should register with as many high-traffic shopbots as possible to reach consumers with different preferences. Based on the above discussion, we have the following hypothesis:

- H4b. Internet retailers who are registered with a larger number of popular Shopbots are more likely to survive.

Offering Value-Added Services

More and more Internet retailers are offering their customers various value-added services, such as keeping track of inventory and receiving product reviews or recommendations. By enhancing consumers’ shopping experience, retailers who offer these

value-added services enjoy competitive advantages for several reasons. First, quality-sensitive consumers are willing to pay a premium to stick with retailers who offer a higher-quality product and/or service. Second, when consumers make purchase decisions, they consider the full price, not just the nominal price. Because using value-added services reduces consumers' total transaction costs (e.g., search cost and perceived risks), thereby reducing the full price they pay, retailers who offer these services can charge a higher nominal price but still keep their full price competitive in the market (Ehrlich and Fisher 1982; Kirmani and Rao 2000; Milgrom and Roberts 1986; Ratchford 2000). Moreover, these services help consumers make purchase decisions more efficiently, leading to a higher level of customer satisfaction. Satisfied customers are more likely to visit a site again. Therefore, we expect that retailers who offer value-added services are more likely to survive the competition:

- H5. Internet retailers who offer value-added services to their customers are more likely to survive.

Loss Leader

Many online retailers have subsidized the purchase of their products and services in hopes of staking out a position on the Internet and attracting a base of customers. Lower price mitigates customers' perceived risks in purchasing online and increases their incentive to experiment, giving online retailers the opportunity to expand their customer base and market share (de Figueiredo 2000). However, low price strategy has its risks if not implemented appropriately. Pricing product and services below present cost to capture market share, even if the prices are still above the lower costs expected in the future due to economies of scale, has created large and growing losses for many firms. Although gaining market share may be an important goal, increasingly heavy losses may force firms using this strategy to change their business practices or go out of business altogether (Shama 2001).

Although the loss leader strategy has been adopted by many online retailers, no studies have ever systematically looked at this issue. Hence, we feel it is important to test the following hypothesis:

- H6. Internet retailers who charge lower prices are more likely to survive.

Going Public

One of the major reasons for Internet IPOs is that companies are rushing to grab market share in an industry in which economies of scale ensure that only a few firms will survive in each niche. Schultz and Zaman (2001) point out that IPOs help Internet firms obtain market share in several ways. First, an IPO provides capital to allow a company to lose money for several quarters while it invests in marketing to gain market share. Second, an IPO allows an Internet firm to acquire other companies using either publicly traded stock or cash obtained in the offering. Schultz and Zaman found that Internet firms acquire other companies at a much higher rate than other newly public firms. These publicly traded Internet companies tended to acquire other Internet firms or else companies that can contribute to the buyer's Internet business. Grabbing market share can give an Internet firm a decisive advantage over potential entrants for two reasons. First, the firm with large market share may be able to charge more (Smith et al. 2000). Second, economies of scale imply that a company with a large market share will face lower costs than potential competitors.

An IPO can also provide publicity and brand awareness for the firm involved (Schultz and Zaman 2001). The increased transparency, broader and deeper publicity, and wider stock ownership that result for the company mean that an IPO is more than simply a way to raise capital. Stock ownership gives a shareholder the incentive to promote the company and become a consumer of its products and services. In addition to publicizing information about the firm's products and services, the IPO process can help build corporate reputation, which may lead to increased sales. In general, an IPO, as an information event, can affect product markets as well as capital markets (Song et al. 2001).

Based on the above discussion, we suggest the following hypothesis:

- H7. Publicly held Internet retailers are more likely to survive.

Methodology

Data Collection

The popularity of PDAs has increased tremendously since they were brought to market in the mid-1990s. PDAs have gone from status symbols for the business elite to must-have organizational tools for those with a busy lifestyle, and they are now making inroads with a larger customer base (Heller 2000). A study by market-research firm NPT Techworld found that revenue from U.S. sales of PDAs rose to \$1.29 million in 2001 from \$1.03 million in 2000. In terms of unit growth, manufacturers sold 4.9 million hand-held devices in 2001, up from 3.5 million in 2000 (Tam 2002). According to iSupply Corp., the PDA market experienced 72 percent growth in 2001, with 12.1 million units shipped worldwide (Anonymous 2002). Researchers at Strategy Analytics predict that global PDA revenue will increase five-fold by 2006, as unit shipments surpass 85 million units (Pfenning 2001). Obviously, this is a fast-growing and hot market. In addition, this is a commodity market. PDAs of the same model are supposed to have the same features and quality, at least for consumers' purposes, regardless of the retailers who carry them. Therefore, we believe this is an ideal product market for our study.

Data collection took place at two different time points. Primary data about retailers, products, prices, and features were collected in September 2001. A second data set was collected in December 2002. The second time around, all the retailers' Websites were revisited to see if they were still operating in the PDA market.

Based on popularity rankings of PDAs by CNET (www.shopper.com), Price Watch (www.pricewatch.com), MySimon (www.mysimon.com), Price Scan (www.pricescan.com), Deal Time (www.dealtime.com), and Amazon (www.amazon.com), we chose 15 of the best-selling PDAs to make up our product basket. These are Palm VX, Palm m100, Palm m505, HP Jornada 548, Sony Clie PEG-N710 C, Handspring Visor Deluxe, Palm m105, Palm VIIX, Palm m500, COMPAQ iPAQ H3650, COMPAQ iPAQ H3670, COMPAQ iPAQ H3635, Palm IIIc, Handspring Visor Platinum, and Handspring Visor Edge. A list of 125 PDA retailers was generated from popular price search intermediaries and business directories, along with business rating sites such as Bizrate.com (www.bizrate.com). All of the 125 vendors on our list carried at least one of the 15 top-selling PDAs.

We visited every selected retailer's Website to determine the prices they charged for the products in our basket, and to ascertain certain features of their Websites. We collected information on Website traffic, date when the retailer went online, and number of external links from Alexa, a Web spider/utility that is the most precise measurer of Website traffic now available. As a supplementary source, we also used Altavista to get the number of external links for each online retailer.

Measurement

The dependent variable, survival, was measured as a dummy variable. If a company was still retailing PDAs in December 2002, the variable was assigned a value of 1; otherwise, it was zero.

All of the independent variables were determined as follows: (1) We determined variety of products by the total number of products a retailer carried out of the 15 products in our product basket. (2) Time online was the number of days since the retailer's Website went online. A log-transformation was performed to normalize this variable. (3) Number of external links was the number of different external Web pages linked to this particular Website. This information was obtained by querying two sources, Alexa and Altavista, for every retailer. We took the mean of the results and a log-transformation was applied to reduce skewness. (4) We measured multichannel operation with a dummy variable to reflect whether a firm was a multichannel retailer or not. We content-analyzed all the Websites and coded for physical presence. (5) We measured the number of shopbots registered by determining with how many out of the six most popular ones a retailer was registered—Shopper (www.shopper.com), Price Watch (www.pricewatch.com), MySimon (www.mysimon.com), Price Scan (www.pricescan.com), Deal Time (www.dealtime.com), and ZDNet (www.zdnet.com). We chose these six shopbots as they were the largest, accounting for 92 percent of all traffic going to online intermediaries, according to www.botspot.com. (6) We measured value-added services by visiting every retail site and coding (as dummy variables) for the presence of the following services: keeping track of inventory level, e-mailing product information to friends, receiving customer reviews or recommendations, and making product comparisons. We picked these four services because they were the most widely offered by online retailers in our sample at the time of data collection. (7) We measured retailers' general price level by the overall price surcharge or discount commanded by a firm. We computed it first by normalizing the price for each PDA model across all retailers, and then by averaging the prices for each retailer across all of the products it carried. (8) We used a dummy variable for going public. If a firm was a public company, then the variable got a value of 1; otherwise it was zero.

Data Analysis

A logistic regression was performed to test all of the proposed hypotheses. Moreover, to get a better understanding of retailers' overall positioning strategies, a cluster analysis was also conducted to classify retailers in the sample according to their different strategic profiles.

Results

The sample descriptive statistics are presented in the Appendix. Among the 125 online retailers, 30 percent are operating on multiple channels and 11 percent are public companies. The percentage of retailers who offer e-mailing a friend, comparing products, receiving product review or recommendations, and tracking inventory services was 34 percent, 17 percent, 9.6 percent, and 53 percent, respectively. This shows that e-mailing a friend and tracking inventory were the two value-added services most commonly offered by online retailers. On average, our retailers sold 9.01 different models of PDAs, and were registered with 1.86 Internet shopbots. At the end of the one-and-one-half-year observation period, 84 retailers in the sample (67.2 percent) were still operating in the PDA market, while 41 (32.8 percent) had exited for different reasons: 5 companies were acquired by or merged with other companies, 7 stopped selling PDAs but were still operating as online retailers in other product markets, 8 left the retail industry and entirely changed their main line of business, and the other 21 were driven out of the electronic market entirely.

Before running the logistic regression, correlations between all of the independent variables were examined (see Appendix). The highest value occurs between public and external links, but it is 0.500, still reasonably low. To check for possible multicollinearity, VIFs were calculated for each independent variable. All of them were below 2.30, which implies that multicollinearity is not a concern here. SPSS was used to run the logistic regression. The results are presented in Table 1.

Table 1. Results of Logistic Regression (N = 125)

Variables	B (Std. Dev.)	P-Value	Exp (B)
Variety of Products	0.090 (0.063)	0.155	1.094
Dates Online	-0.464 (0.500)	0.354	0.629
Multichannel	1.427 (0.586) *	0.015	4.168
External Links	0.288 (0.115) *	0.012	1.334
Shopbots	0.060 (0.168)	0.721	1.062
Track Inventory	0.353 (0.468)	0.450	1.424
Email Friend	1.440 (0.496) **	0.004	4.221
Compare Products	-0.327 (0.644)	0.612	0.721
Consumer Review	-0.002 (0.831)	0.998	0.998
Price	-0.428 (0.356)	0.230	0.652
Public Company	0.180 (0.925)	0.846	1.197
Constant	-2.468 (25.656)	0.923	0.085
-2 Loglikelihood	132.637		

* $p < .05$

** $p < .01$

*** $p < .001$

The regression results show (1) that online retailers who offer the e-mailing a friend service to consumers are 3.221 times more likely to survive; (2) that online retailers who have a larger number of external links are more likely to survive; and (3) that hybrid online retailers are 3.168 times more likely to survive. Therefore, hypothesis 3 and hypothesis 4a were supported, and hypothesis 5 was partially supported. All of the other hypotheses were not supported at the $\alpha = 0.05$ level. The results imply that only the following strategies give retailers sustainable competitive advantages in the Internet market: offering value-added services, branding, and multiple-channel operation. Other strategies that have proven to be effective in traditional market, such as economies of scale, first-mover advantage, being a loss leader, and going public, have not been shown to bring sustainable competitive advantages to online retailers.

The cluster analysis was performed using the SPSS Quick Cluster routine (Norusis 1994). Unlike other statistical methods, cluster analysis does not provide precise rules for choosing a cluster solution (Dess and Davis 1984). Hair et al. (1992) suggest that it is probably best to compute solutions for several different numbers of clusters and then to decide among the alternative solutions based upon prior criteria, practical judgment, common sense, or theoretical foundations. In this study, all strategy variables were clustered or classified, and two, three, and four cluster solutions were all considered. A three-cluster solution was chosen because this number of clusters was the smallest that adequately differentiated between the strategy variables. To test the hypothesis of no difference between the strategy variables across the three clusters, ANOVA with Scheffe pairwise comparisons were used for continuous variables, and a cross-tabulation calculation was performed for categorical variables. Results of cluster analysis are presented in Table 2.

Table 2. Results of Cluster Analysis (N= 125)

Variables	Cluster 1 n = 17	Cluster 2 n = 67	Cluster 3 n = 41
Variety of Products ***	12.94	10.69	4.63
Dates Online **	7.46	7.02	7.02
Multichannel	0.47	0.27	0.27
External Links ***	9.80	4.44	6.02
Shoptbots **	2.65	2.10	1.15
Track Inventory	0.77	0.46	0.54
Email Friend **	0.65	0.22	0.39
Compare Products **	0.41	0.09	0.20
Consumer Review **	0.35	0.05	0.07
Price **	0.26	-0.15	0.24
Public Company ***	0.59	0	0.10
Survival *	0.94	0.64	0.61

*p < .05

**p < .01

***p < .001

Cluster analysis reveals that retailers are adopting different combinations of strategies. Comparing the survival rates across the three clusters, those using cluster 1 had a significantly higher chance to survive than those using cluster 3 (survival rate of 94 percent versus 61 percent). Further examination shows that the retailers in these two clusters have totally different strategic profiles. Retailers in cluster 1 offer a larger selection of products, have been online for a longer time, have established a larger number of external links, are registered with a larger number of popular Internet shoptbots, have a higher probability of offering value-added services, and are much more likely to be public companies. It is interesting to note that retailers in both cluster 1 and cluster 3 command a price premium, while cluster 2 retailers charge below-average prices. The higher survival rate of cluster 1 indicates that a successful business model is to offer consumers superior values while enjoying a price premium. The business model of cluster 2 seems acceptable – offer consumers moderate values and charge below-average prices. However, the business model adopted by cluster 3 retailers proved to be ineffective: they charged above-average prices without offering consumers superior values.

Implications

The results of this study offer the following important implications for both researchers and practitioners:

First, the results of this study raise an important question: for retailers competing in a homogeneous product market, does a first-mover advantage exist on the Internet? If yes, is it more difficult for first-movers to sustain their advantages in the electronic market than in the traditional channel? Switching costs are identified in the previous literature as a major source of first-mover's advantage. However, raising switching costs may be more difficult on the Internet than in traditional channels. On the Internet,

buyers can often switch suppliers with just a few mouse clicks, and new Web technologies are systematically reducing switching costs even further (Porter 2001). Moreover, weak intellectual property rights protection, technological interdependence, market and technical uncertainties, rapid rates of technological innovation, and the swift movement of information may make it more challenging to sustain first-mover advantages (Mellahi and Johnson 2000). Obviously, more studies are needed to further explore this issue.

Second, multichannel operation brings sustainable competitive advantages to online retailers. On the demand side, most buyers will value a combination of online services, personal services, and physical locations over standalone Web distribution. They will want a choice of channels, delivery options, and ways of dealing with companies. On the supply side, production and procurement will be more effective if they involve a combination of Internet and traditional methods. Hence, it is not surprising to observe that, just as brick-and-mortar retail giants are clamoring to have a presence on the Internet, many pure online players are looking to find a place for themselves offline by venturing into the catalog business or by opening retail stores (Harris 2000).

Third, just as in the physical world, offering value-added services is critical to business-to-consumer e-business success. In most sectors, commodity-based, price-sensitive competition on the Web will not be a sustainable business model. There are two dimensions of service along which online retailers can differentiate themselves: merchandise and support (Willcocks and Plant 2001). The merchandise dimension refers to product features such as color, shape, size, and performance. Differentiation in this dimension is crucial for manufacturers. However, online retailers in commodity markets such as PDAs cannot do much in this dimension. The support dimension refers to features that help customers choose, obtain, and use the product. With the advances in information technology, it is expected that online retailers will have more differentiation tools available to leverage in this dimension.

Finally, brand still matters. At the beginning of e-commerce, many people predicted that with reduced consumer search and switching costs, the Internet would level the field for all players. But this study concurs with previous studies (e.g., Smith and Brynjolfsson 2001) in indicating that brand is just as important in the electronic market as in the traditional market. Therefore, online retailers should take advantage of the efficient communication the Internet allows them to build up their reputation quickly and cheaply. Establishing external links has proven to be an effective option.

Limitations and Future Research

As an exploratory study, this study has the following limitations: first, we studied only one product market: PDAs. Findings from this particular market may not hold in other product markets. Future research is needed to extend this study by examining other product markets. Second, our sample may not be representative of all PDA retailers. We included in our sample only retailers that carried at least one of the 15 best-selling PDAs. Some smaller or specialized retailers were not included in our sample if they focused on older or less popular models. Third, measurements for some constructs can be improved in the future. For example, for first-mover advantage, it would be ideal to use the time a retailer has been selling PDAs online, rather than the time a retailer has been operating online. However, this information is difficult to obtain. In addition, low price itself does not necessarily indicate a loss leader strategy. Some retailers are able to charge lower prices than competitors because of their higher operating efficiency. Better ways to measure this construct should be adopted in future studies. Fourth, some control variables, such as firm size, should be considered in future research to eliminate the effects of other factors on firms' survival. Fifth, the dependent variable, the survival of online retailers in the PDA market, was measured only with a dummy variable, despite the fact that retailers exited the market for various reasons. The small sample size prevented us from coding this variable into multiple categories. Sixth, the small sample size may also affect the results of our cluster analysis. For example, cluster 1 is much smaller than the other two clusters. In future studies, a bigger sample should be used to reanalyze the strategic profiles of online retailers. Finally, the strategies examined here are not orthogonal. In other words, they may be highly related or overlapping. This resulted in relatively high bivariate correlations between some variables. Although VIFs do not indicate multicollinearity, future research would benefit from a more differentiated identification of all the strategies.

Conclusion

Porter (2001) points out that the new economy appears "less like a new economy than like an old economy that has access to a new technology." While a new means of conducting business has become available, the fundamentals of competition remain unchanged. Empirical findings of this study show that delivering real value to consumers is still the main source of a firm's long-

term competitive advantage on the Internet, especially for retailers competing in homogeneous product markets. As the Internet market grows and matures, we can see that e-commerce isn't glamorous or new or unique anymore. It is just plain commerce—another channel to reach customers, dealers and suppliers (Betts 2002). “When we take a closer look at the nature of strategy and competition in the Internet era, we make a fascinating discovery: The more things change, the more they stay the same” (Finkelstein 2001). The winners in the long run will be those retailers who have been focusing on basic business principles, creating real value that customers will pay for.

At the same time, we should be aware that e-commerce has not been fully understood. Due to the unique features of the Internet as a communication and distribution channel, the implementation of various strategies and the application of basic business principles could be very different online than in the traditional market. The development of information technologies plays a critical role. How to take advantage of all kinds of technological tools uniquely available on the Internet to achieve different strategic goals, such as building brand reputation and offering superior value to customers, is the greatest challenge faced by online retailers in the commodity product market. More research in this area is definitely needed.

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Appendix. Sample Descriptive Statistics (N = 125)

Variable	Mean (Std)	Correlation Coefficients											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Survival	0.67 (0.47)	-											
2. Variety of products	9.01 (3.93)	0.19*	-										
3. Time online	7.08 (0.55)	0.09	0.23*	-									
4. Multichannel	0.30 (0.46)	0.19*	0.08	0.18*	-								
5. External links	5.68 (2.86)	0.22*	0.17	0.47*	0.11	-							
6. Search engines	1.86 (1.57)	0.15	0.40*	-0.11	-0.01	0.17	-						
7. Email friend	0.34 (0.47)	0.15	0.06	0.04	0.06	0.28*	0.10	-					
8. Track inventory	0.53 (0.50)	0.02	0.08	0.22	0.05	0.34*	0.02	0.06	-				
9. Product review	0.10 (0.30)	0.05	0.08	0.07	0.03	0.28*	0.06	0.11	0.04	-			
10. Compare products	0.17 (0.38)	0.09	0.13	0.12	0.08	0.26*	0.12	0.22*	0.17	0.22*	-		
11. Price	0.04 (0.68)	-0.07	-0.20*	0.22*	0.26*	0.15	-0.26*	0.02	0.10	0.04	0.05	-	
12. Public	0.11 (0.32)	0.09	0.15	0.23*	0.16	0.50*	0.06	0.28*	-0.02	0.06	0.11	0.16	-

*Significant at $\alpha = 0.05$ level (two-tailed)